Excelpool Salt System

Saltwater Chlorine Generator

Installation and Operation Manual

IN ORDER NOT TO VOID WARRANTY,
READ MANUAL BEFORE INSTALLATION.

Not following proper installation and or proper use guidelines may void your warranty.

READ AND FOLLOW ALL INSTRUCTIONS

When installing and using this electrical equipment, basic safety precautions should always be exercised, including the following:

WARNING

Risk of Electric Shock. All electrical wiring MUST be in conformance with all applicable local codes, regulations, and the National Electric Code ® (NEC®).

WARNING

To reduce the risk of injury, do not permit children to use this product.

WARNING

Higher temperatures may require higher chlorine output to maintain proper free available chlorine residuals. The actual amount of chlorination required by your pool can change, and varies according factors not limited to bather load, rain, temperature, dirt, debris, and chemical balance.

WARNING

Always turn unit off when operating any plumbing control valves such as for backwashing, water exhaust, or during operation of spa or water features if operation restricts water flow to the cell. A build-up of flammable gases will result in hazardous conditions.

- When installing the unit, ensure that materials and parts used in the pool are compatible with the use of chlorinated water and salt. Avoid high salt levels (above the recommended range).

- Ensure that the chlorine generator operates only when the circulation pump is operating. When installed with a pool equipment timer, the

Control Module must be to the load side of the timer clock.

- If additional chlorine is required (due to hot weather), use Sodium Hypochlorite to maintain an appropriate chlorine residual in the water.

- Proper pool chemistry must be maintained at all times.

- A green colored terminal is located inside the wiring compartment. To reduce the risk of electric shock, this terminal must be connected to the grounding means provided in the electric supply service panel with a continuous copper wire equivalent in size to the circuit conductors supplying the equipment.

- One bonding for US models is provided on the external surface. To reduce the risk of electric shock, connect the local common bonding grid in the area of the swimming pool, spa, or hot tub to these terminals with an insulated or bare copper conductor not smaller than 8 AWG US.

SAVE THESE INSTRUCTIONS

Table of Contents

OPERATION

WARRANTY

TROUBLESHOOTING

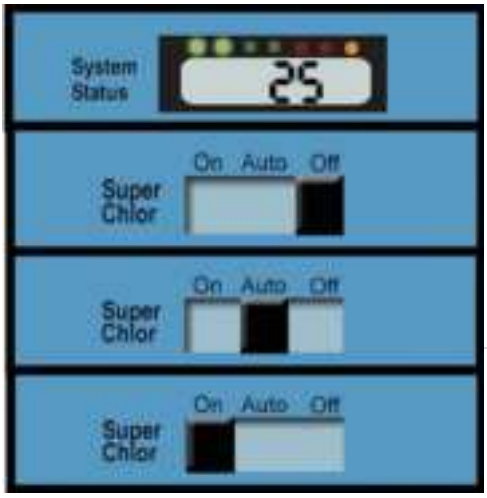
INTRODUCTION

The Excelpool System Salt water chlorination is a process that uses dissolved salt for the chlorination of swimming pools. The chlorine generator uses electrolysis in the presence of dissolved salt to produce chlorine gas or its dissolved forms, hypochlorous acid and sodium hypochlorite, which are already commonly used as sanitizing in pools.

The Excelpool System is designed for residential swimming pool up to 60,000 gallons (230,000 liters).
The actual amount of chlorination required to properly disinfect the pool depends on the bather's load, rainfall, air temperature, water temperature, exposure of the pool to the sun, pool surface and cleanliness.

Note:It is not recommended using the Excelpool System to generate Bromine. If your pool has natural stone as coping or decking,please check with a stone installation specialist for the maintenance of the stone before installing the Excelpool System.

Switches of Control



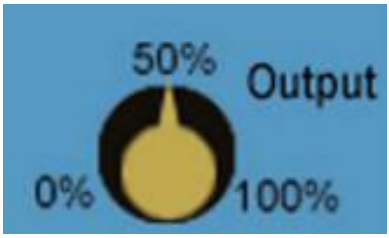
AUTO: Generally, if the CFLH is in “Auto”, it will automatically work according to the chlorine output settings.

SUPER CHLOR: The “Super Chlor” function is the process of temporarily increasing the free chlorine levels in the pool for the purpose of increased sanitation power. It's often necessary when the pool water is cloudy, free chlorine levels to fall below optimum levels. Switch to “ON”. It will work 100%, remember to back to “Auto” when you have desired chlorine.

OFF: In “OFF”, the CFLH stops outputting chlorine.

NOTE: During the maintenance, please turn the power off the circuit breaker. The OFF switch is not to be used.

OUTPUT LEVEL CONTROL



Adjust this setting to increase or decrease the chlorine output level percentage.

WATER CHEMISTRY

For any pools it is mandatory to maintain proper water chemistry of the pool water, including pH, calcium levels, and alkaline content, especially to maintain proper levels of salt and stabilizer. It helps to prevent corrosion or scaling and to bring better experience for pool users. It is recommended that pool water be professionally tested a minimum of twice per 3 months and adjust the water chemistry in time. Remember to tell the pool store service staff that you are using a salt chlorine generator.

IDEAL CHEMICAL LEVELS

Water chemistry	Salt Level (ppm)	Free Chorine (ppm)	PH	Calcium Hardness (ppm)	Stabilizer (ppm)	Metals	Total Alkalinity (ppm)	Saturation Index
Ideal	3000-4000	1.5- 3	7.2-7.7	200-400	50-80	None (0 best)	80-120	-0.2 to +0.2

Saturation Index

The “saturation index,” or the “stability index,” is a numerical value indicating whether or not water is balanced.

$$\textit{Saturation Index} = pH + TF + CF + AF - 12.1$$

Ideal Salt Levels & Pool Size

Use the table below to help determine the amount of salt and pool size. The ideal salt level is between 3000-4000 ppm.

Calculating Liters	
Rectangular Pools	Length×Width×Average Depth×1000
Oval Pools	Length×Width×Average Depth×893
Round Pools	Diameter×Diameter×Average Depth×785

Calculating Gallons	
Rectangular Pools	Length×Width×Average Depth×7.5
Oval Pools	Length×Width×Average Depth×6.7
Round Pools	Diameter×Diameter×Average Depth×5.9

- The ideal salt level is between 3200-3400ppm (parts per million) with 3600 ppm being the optimal level. Calculate the number of gallons in the pool and add salt according to the chart on page 10
- A LOW salt level will reduce the efficiency of the Excelpool System and result in low chlorine production.
- Excessively HIGH salt levels will cause the Excelpool System to shut down,making pool water unsafe for bathers. Low salt levels can cause the Excelpool System not to operate efficiently,causing the same.

Type of Salt to Use

Use evaporated, granular non-iodized salt (sodium chloride). The purer the salt (at least 99%).Improve the life and performance of the electrolytic cell. Water softening salt (also called water conditioner).Granules are an economical way to buy large amounts of salt. However, only NaCl salt with a purity of at least 99% can be used. The pill is a compressed form of evaporated salt and may take longer to dissolve. Avoid using salt with an anti-caking agent, which may cause discoloration.When adding salt to the pool, it's best to pour the required salt into the shallow end of the pool and run filter and pump at the same time to circulate the water and dissolve the salt. Do not pour the salt bag into the water because the chemicals and ink on the bag will Disturb water balance. In summer, salt may take 24-48 hours to dissolve, while in winter it takes longer. Fine grain the salt will dissolve faster than compressed tablets.

In any swimming pool, do not add salt directly to the skimmer or directly to the main drain. Due to the high concentration of salt and reduced pump flow, this will shut down or shorten the life of the cells.

If the addition is incorrect, please turn off The Excelpool System immediately for 24 hours while the pump and filter are still running. This will help distribute the salt evenly. The salt display may take up to 24 hours to respond to changes in salt concentration.

WARNING

Do not use salt with any Phosphates

Adding Salt

POUNDS and (Kg) OF SALT NEEDED FOR 3400 PPM

Current salt level ppm	14,000 (52,500)	16,000 (60,000)	18,000 (67,500)	20,000 (75,000)	22,000 (82,500)	24,000 (90,000)	26,000 (97,500)	28,000 (105,000)	30,000 (112,500)	32,000 (120,000)	34,000 (127,500)	36,000 (135,000)	38,000 (142,500)	40,000 (150,000)
0	419 (190)	481 (218)	540 (245)	599 (272)	661 (300)	720 (327)	779 (354)	841 (381)	900 (409)	962 (436)	1021 (463)	1082 (491)	1139 (517)	1201 (545)
200	356 (160)	464 (206)	518 (232)	568 (257)	624 (284)	682 (309)	736 (335)	794 (360)	850 (387)	906 (413)	964 (439)	1020 (464)	1076 (490)	1134 (515)
400	373 (170)	427 (194)	480 (218)	533 (242)	587 (267)	640 (291)	693 (315)	747 (339)	800 (364)	854 (388)	907 (412)	960 (436)	1013 (460)	1067 (484)
600	350 (159)	402 (182)	455 (206)	508 (227)	560 (250)	800 (273)	852 (296)	705 (318)	750 (341)	850 (363)	853 (385)	900 (408)	952 (430)	1006 (453)
800	327 (148)	373 (170)	420 (191)	467 (212)	513 (233)	560 (255)	607 (276)	653 (297)	700 (318)	747 (339)	793 (360)	840 (382)	887 (403)	933 (424)
1000	303 (138)	347 (158)	396 (177)	433 (197)	477 (217)	520 (236)	563 (256)	607 (276)	650 (297)	693 (317)	737 (337)	780 (368)	823 (378)	867 (398)
1200	280 (127)	320 (145)	360 (164)	400 (182)	440 (200)	480 (218)	520 (236)	560 (255)	600 (273)	640 (291)	680 (310)	720 (328)	760 (346)	800 (364)
1400	257 (117)	293 (133)	330 (150)	367 (167)	403 (183)	440 (200)	477 (217)	513 (233)	550 (250)	587 (267)	623 (283)	660 (300)	697 (317)	733 (333)
1600	233 (106)	267 (121)	300 (136)	333 (152)	367 (167)	400 (182)	433 (197)	467 (212)	500 (227)	533 (243)	567 (258)	600 (274)	633 (288)	667 (304)
1800	210 (95)	240 (109)	270 (123)	300 (136)	330 (150)	360 (164)	390 (177)	420 (191)	450 (205)	480 (218)	510 (232)	540 (246)	570 (259)	600 (273)
2000	187 (85)	213 (97)	240 (109)	267 (121)	293 (133)	320 (145)	347 (158)	373 (170)	400 (182)	427 (194)	453 (207)	480 (219)	507 (231)	533 (243)
2200	163 (74)	187 (85)	210 (95)	233 (106)	257 (117)	280 (127)	303 (138)	327 (148)	350 (159)	373 (169)	397 (180)	420 (190)	443 (201)	467 (211)
2400	140 (64)	160 (73)	180 (82)	200 (91)	220 (100)	240 (109)	260 (118)	280 (127)	300 (136)	320 (145)	340 (154)	360 (163)	380 (172)	400 (181)
2600	117 (53)	133 (61)	150 (68)	167 (76)	183 (83)	200 (91)	217 (98)	233 (106)	250 (114)	267 (121)	283 (129)	300 (137)	317 (144)	333 (152)
2800	93 (42)	107 (48)	120 (55)	133 (61)	147 (67)	160 (73)	173 (79)	187 (85)	200 (91)	213 (97)	227 (104)	240 (110)	253 (117)	267 (123)
3000	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
3200	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
3400	Ideal	Ideal	Ideal	Ideal	Ideal	Ideal	Ideal	Ideal	Ideal	Ideal	Ideal	Ideal	Ideal	Ideal
3600	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
3800	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
4000	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	OK
4200	High	High	High	High	High	High	High	High	High	High	High	High	High	High
4400	Dilute	Dilute	Dilute	Dilute	Dilute	Dilute	Dilute	Dilute	Dilute	Dilute	Dilute	Dilute	Dilute	Dilute

STABILIZER(CYANURIC ACID)

Always test for stabilizer(cyanuric acid) level,when testing for salt.This test should be done at least once per month, Use the chart below to determine how much stabilizer must be added to raise the level to 80 ppm.

NEEDED FOR 80 PPM Gallons and (Liters) of Pool/Spa water

Current Stabilizer Level(ppm)	14,000 (52/600)	16,000 (60/600)	18,000 (67/600)	20,000 (76/600)	22,000 (82/600)	24,000 (90/600)	26,000 (97/600)	28,000 (105/600)	30,000 (112/600)	32,000 (120/600)	34,000 (127/600)	36,000 (135/600)	38,000 (142/600)	40,000 (150/600)
0 ppm	9.4 (4.3)	10.7 (4.9)	12.0 (5.4)	13.4 (6.1)	14.7 (6.7)	16.0 (7.3)	17.3 (7.9)	18.7 (8.5)	20.0 (9.1)	21.3 (9.7)	22.7 (10.3)	24.0 (10.9)	25.3 (11.5)	26.7 (12.0)
10 ppm	8.2 (3.7)	9.4 (4.3)	10.5 (4.8)	11.7 (5.3)	12.9 (5.9)	14.0 (6.4)	15.2 (6.9)	16.4 (7.4)	17.2 (8.0)	18.7 (8.5)	19.8 (9.0)	21.0 (9.6)	22.2 (10.0)	23.3 (10.6)
20 ppm	7.0 (3.2)	8.0 (3.6)	9.0 (2.2)	10.0 (4.5)	11.0 (5.0)	12.0 (5.4)	13.0 (5.9)	14.0 (6.4)	15.0 (6.8)	16.0 (7.2)	17.0 (7.7)	18.0 (8.1)	19.0 (8.6)	20.0 (9.0)
30 ppm	5.9 (2.7)	6.7 (3.0)	7.5 (3.4)	8.4 (3.8)	9.2 (4.2)	10.0 (4.5)	10.8 (4.9)	11.7 (5.2)	12.5 (5.6)	13.3 (6.0)	14.2 (6.3)	15.0 (6.7)	15.8 (7.1)	16.7 (7.5)
40 ppm	4.7 (2.1)	5.4 (2.4)	6.0 (2.7)	6.7 (3.0)	7.4 (3.3)	8.0 (3.6)	8.7 (3.9)	9.3 (4.2)	10.0 (4.5)	10.7 (4.8)	11.3 (5.1)	12.0 (5.4)	12.7 (5.7)	13.3 (6.0)
50 ppm	3.5 (1.6)	4.0 (1.8)	4.5 (2.0)	5.0 (2.3)	5.5 (2.5)	6.0 (2.7)	6.5 (2.9)	7.0 (3.2)	7.5 (3.4)	8.0 (3.6)	8.5 (3.9)	9.0 (4.1)	9.5 (4.3)	10.0 (4.5)
60 ppm	2.4 (1.1)	2.7 (1.2)	3.0 (1.4)	3.3 (1.5)	3.7 (1.7)	4.0 (1.8)	4.3 (2.0)	4.7 (2.1)	5.0 (2.3)	5.3 (2.4)	5.7 (2.6)	6.0 (2.7)	6.3 (2.8)	6.7 (3.0)
70 ppm	1.2 (.54)	1.4 (.64)	1.5 (.68)	1.7 (.77)	1.8 (.82)	2.0 (.91)	2.2 (1.0)	2.3 (1.1)	2.5 (1.2)	2.7 (1.2)	2.8 (1.3)	3.0 (1.3)	3.2 (1.4)	3.3 (1.5)
80 ppm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

POLYMERS

It is advised to use polymers(commonly sold as poly algaecide) on salt water sanitizing systems. The poly algaecide is sold in 30% and 60% concentrations. Application rate is 1 quarit of Poly 30(0r ½ quart of Poly 60) per 15,000 gallons(60,000 liters) of pool water,per month. Apply directly in front of the return jet.

OPERATION

By familiarizing yourself with the operation of the The Excelpool System generator, you can achieve maximum performance for your pool. When chemical levels are in the recommended range, there are FOUR factors that you can control. Filter time each day, amount of salt in the pool, the output of chlorine you set, and stabilizer level in the water will directly impact the amount of chlorine the The Excelpool System will generate.

When you just begin to set the model, it will take you days to find ideal chlorine output, you can start at a high setting and then turn down.

Indicators and Diagnostic Displays.

POWER: Power illuminate, model is in power.
GENERATION: Model in normal operation, the LED will be steady. If it is flashing, check the pool water chemicals.

SUPER CHLOR: The generator runs at 100% capacity which can produce enough chlorine to clear up moderate cloudiness, but the generator is forced to overwork. It will be automatically switched to the original output after 24- hour SUPER CHLOR operation.

REMOTE: Controlled by remote models (not available)

CHECK CELL: If “Check Cell” LED is flashing and salt level is above 2700ppm, 500hrs cell count down timer is active. Once cleaned, hold down “System Status” button (3-5 seconds) to reset timer for 500hrs.

HIGH SALT: When it is on or flashing, The Excelpool System is warning that the water salinity is too high to work
.
CHECK SALT: When it is on or flashing, The Excelpool System salinity is too low to work.

NO FLOW: When it is on, flow switch will be detected that there is no flow through the cell. If it is flashing, the flow is restored.

DIAGNOSTIC DISPLAY
Average Salt Level (default as 2800ppm)
1. Water Temperature (xx degrees Fahrenheit or Celsius)
2. Cell Voltage (20-30VDC)
3. Cell Amperage (How is the cell working, fine or not)

4. Desired Output % (% of cell time ON)
5. Instant salinity
6. Product name sent to the pool automation Control display (AL0-5=product branding)
7. Software revision level
8. Cell type

20,000 Gallons Salt System PG-5065 cell type F-3
30,000 Gallons Salt System PG-5066 cell type F-9
40,000 Gallons Salt System PG-5067 cell type F-15
60,000 Gallons Salt System PG-5084 cell type H-15

9. Salt Calibration (E000)
10. End of the loop (-EE)

RECALIBRATING YOUR SALT

If your water test reading differs from what the system is showing,then you may need to recalibrate the system.The very first time you calibrate your system,the display will read "E000."

Once calibrated,the display will show "E***."

If you've recalibrated your system before,the display will show your last reading. For example,if it shows E800,then the last time we calibrated the system,you added 800PPM into the pool.

1. Move the Super Chlorinate switch to OFF.
2. Hit the "System Status" button nine times until you find "E***" on the display board.
3. Move the "Chlorine Output" dial to 100% then down to 50%. The "E" should begin to flash. When you see the "E" flashing,you can set the dial to 0%-50%

or 50%-100%.

4. Press the "System Status" button once to set.
5. You are finished when you see "-AA".

Spring Start-up

When reopening the pool after long term, check all water chemistry before power on the The Excelpool System.

Maintenance

When checking other water chemistry levels, always monitor the salinity level of the swimming pool.

After the system runs for a period of time, it will eventually need to clean the cells due to the scaling of natural minerals.

You will be notified by opening "CHECK CELL" Light. When lit, cleaning the cell with a cleaning stand is better.

Important information: The frequency of cleaning depends on your water chemistry and water saturation index.

For most people, only need to clean a few times per season. Faster mineral accumulation must be long-term high saturation index, chemical imbalance may lead to rapid fouling. Consult Swimming pool professionals.

How to clean the cell?

Important information: If there is severe mineral accumulation, more than one cleaning may be required to dissolve the remaining solids.

After cleaning, carefully inspect the cell plate with bright light. If you see any remaining scale, debris or physical blocked in the salt cell, please repeat the cleaning process as needed. If it is "check cell" come back soon after cleaning,

1) Confirm that the salinity is within the range

2) Ensure that the cell is fully filled with water
3) Verify the cell type setting of the system

Before removing the cell for cleaning or replacement:

1) Turn off all power sources of all swimming pool equipment and close the water supply line valve (if applicable).
2) Unplug the cell cable connecting to the control box.
3) Loosen the threaded ring around the joint at the junction of the pool and the pipes.

To clean the cell with mineral deposits:

1) Cleaning stand and adjust the direction of the cell vertically. Place on the ground and stabilize to keep it upright.
2) In a separate bucket, mix one part of muriatic acid with four parts of water. Pour this acid solution directly to cell. Make sure that the cleaning water completely covers the components inside the cell.
3) Wait for the foaming to stop. Let the solution soak for no more than fifteen minutes.
4) Properly dispose of the acid solution, and use a hose to wash away the remaining debris from the pool.
5) Look inside the unit and check if there is no debris or scale residue. If necessary, repeat steps 2-4.
6) Re install the cell into the PVC return pipe.

Note: If you do not currently have a cleaning cap or cleaning rack, you can fully immerse the cell in a five-gallon bucket.

ALWAYS POUR ACID INTO WATER-NEVER POUR WATER INTO ACID.

BE SURE TO WEAR PROTECTIVE GLASSES, CLOTHING, AND CHEMICAL RESISTANT GLOVES.

INSTALLATION

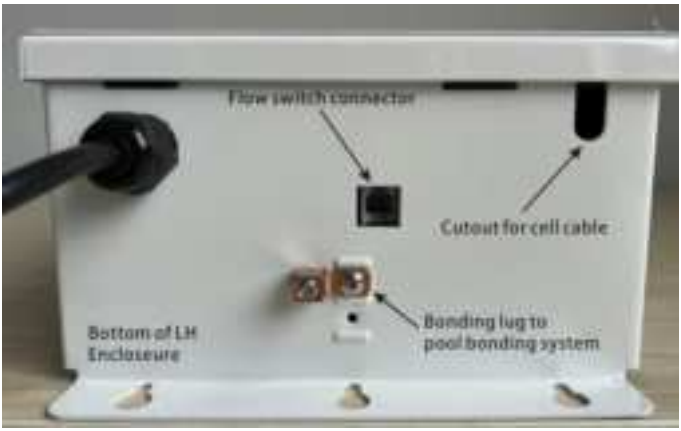
Before installation, make sure all the water chemistry is in normal range.
Using 2-inch pipes and should be performed by qualified personnel in case there is a 1.5-inch pipe, a reducer can be used to fit the system; be sure to pay attention to any changes.
Check each measurement carefully before cutting.

Mounting the The Excelpool System Control

Install the control box as close as possible to the pump and filter system. For safety reasons, please do not install the control box within 10 feet of the edge of the pool and comply with all applicable regulations. Verify cell and flow switch cable can reach the control box.
As with most electronic devices, avoid using the controller above the heater or in a tightly enclosed or insulated space can avoid excessive heat accumulation and also avoid being close to acid chemicals, it may damage the control.
Use screws to fix the mounting bracket of the control box on the wall or vertical bracket comfortably horizontally.
At least 3 feet above the ground. Hang the control on the bracket.

Mounting the Flow Switch, and Cell.

Flow switch, confirm that the arrows on the flow switch (located on the side) point in the same direction of water flow.
The Cell and Flow Switch cables have easy plug-in connectors in the control, the diagram below for the location of these connections.



Plumbing

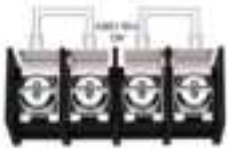
These instructions apply to 2-inch pipe (typical). Make sure to choose with existing pool pipe size (1.5 inches or 2 inches), and discard other unnecessary joints.

For articulated connections, you will also use the included 2" to 1.5" reducer bushing to accommodate the flow switch. For 1½" installations, be sure to pay attention to any new or other measurements before cutting the tube.

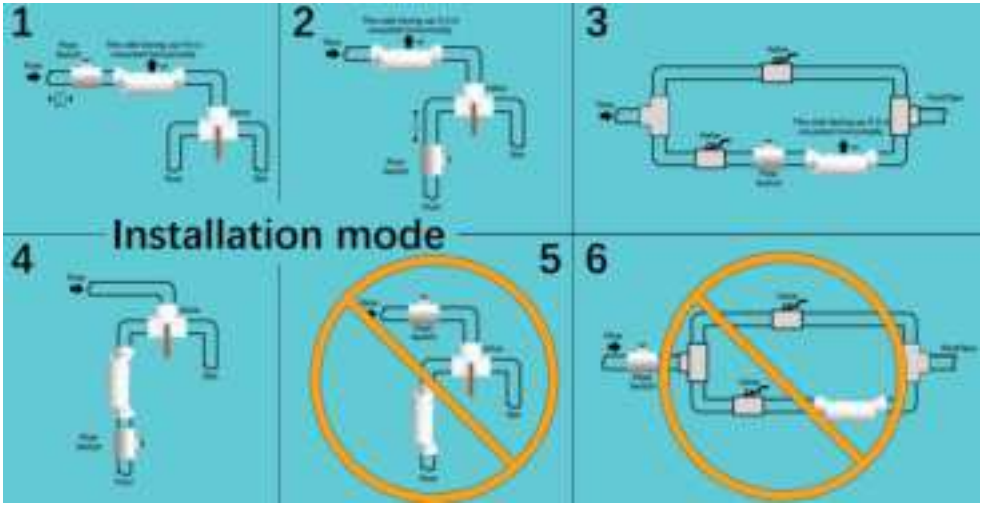
All service should only be attempted by a person with appropriate electrical skills needs to be licensed electrician only,with all equipment disconnected from power. The factory setting is 220-240V,if you need 100-12oV,please move the internal jumper as below.

JUMPER CONFIGURATION

Factory Set
For 220-240V



For 110-120V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2
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Installation mode
4
5
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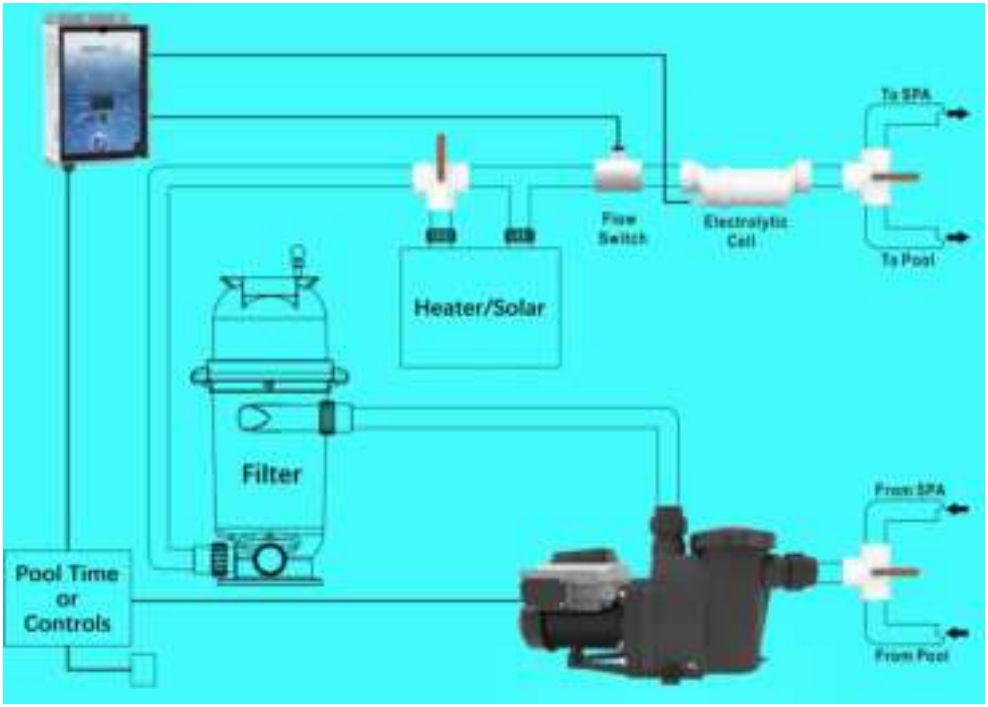
To SPA
Flow Switch
Electrolytic Cell
To Pool
Heater/Solar
Filter
From SPA
Pool Time or Controls
From Pool

ONE(1) YEAR FULL WARRANTY

(For RESIDENTIAL USE)

Guarantee that The Excelpool System will be free from defects in materials and workmanship, defects in normal use and non-commercial applications within one (1) year specified below.
Proof of purchase may be required. This limited warranty is extended exclusively to the original purchaser of the The Excelpool System system and is non-transferable. Excelpool System is intended for residential pool and any commercial application voids all warranties.

One (1) year full warranty schedule for power cell and generating cell. During year one: 100%

Useful tips and troubleshooting assistance please call 336-860-0430. Warranty issues repair & retun,please ship to our warranty center,12245 Nations Ford Road Suite 501,Pineville,NC 28134.

WARRANTY (FOR COMMERCIAL USE)

One (1) year full warranty for residential use, but for commercial use 6 months only.

TERMS OF SALE: If, after receiving this item you discover that it was not the one you wanted, simply return it for a full refund within 30 days. Has to unopened in resellable condition and a 25% restocking fee.Refund is void if you have installed, used or damaged the item in any way. Item must be

returned with its original box, packing materials and instructions (if applicable) in the same perfect new condition. Cleared Payment via PayPal must be received within 3 days of transaction and prior to shipping.

This limited warranty is subject to the following terms, conditions, and exclusions:

1. To obtain the benefits of this warranty, contact the warranty department for troubleshooting.
2. Should a defect in any item or part covered by the warranty become evident during the warranty's term, product will at its sole discretion repair or replace such item or part. product reserves the right to replace defective parts with new or refurbished parts. This warranty does not include the cost of labor or transportation charges for equipment or component parts to or from product, or the removal, reinstallation, or any such costs incurred in obtaining warranty replacements or repairment.
3. This warranty extends to the original retail purchaser and original installation site only, beginning at the original date of purchase, and is non-transferrable.
4. The warranty contains the following exclusions. O-Rings, rubber gaskets, electrical fuses, and circuit-breaker components are normal replacement items subject to wear and are excluded from the warranty.

• **Product discoloration, or any other cosmetic or superficial damage or deterioration, regardless of its cause, is not covered by this warranty. The warranty is not applicable to problems arising from circumstances outside the control of product, including, but not limited to the following:**

A. Damage or premature wear due to improper pool chemistry, and failure to maintain pool water chemistry in accordance with the recommendations contained in the owner's manual.
B. Damage due to improper installation or connection to improper voltages, including materials and workmanship supplied by others.
C. Damage due to negligence or failure to properly maintain equipment,

including the maintenance of clean and tight electrical connections.
D. Damage due to improper service, as well as unauthorized equipment modifications and use of non-genuine replacement parts.
E. Damage due to misapplication, misuse, abuse, overuse the cell lifetime (over 10 hours per day) or failure to operate equipment as specified in the owner's manual.
F. Problems resulting from tampering, accident, fire, flood, freezing, lightning, insects, or other natural elements, or other circumstances beyond the control of product.
G. Damage due to over-tightening of threaded components or excessive pressure or stress.
H. Material supplied or workmanship performed by others in the process of installation.
The liability of Product shall not exceed the repair or replacement of defective items or parts under the referenced limited warranty terms. There are no implied warranties of merchantability or fitness for a particular purpose that apply to this equipment. Under no circumstances shall product, its agents, employees, and affiliates be liable for any loss, damage, injury, inconvenience or loss of time, incidental expenses such as labor and material charges, or any other incidental, or consequential damages, which may result from the use, installation, removal, or reinstallation of its equipment and parts.
This warranty is valid only in the United States of America. This warranty gives you specific legal rights and you may also have other rights, which vary from state to state. This warranty supersedes all previous publications. Any dispute between the original purchaser and product will be settled by binding arbitration, conducted in Mecklenburg County, NC, under the rules of the American Arbitration Association.

Disclaimer: This limited warranty is the entire warranty. No other warranties apply, expressed or implied. This limited warranty gives you specific legal

rights, which varies accordingly from state to state. Under no circumstances shall the manufacturer or authorized agents/installers be responsible for consequential, special, or incidental damage(s) of any kind, including but not limited to personal injury. Property damage or damage to or loss of equipment. The manufacturer or agents/installers are not liable for any other expenses that may be encountered during installation or servicing. Authorized agents/installers may charge a trip fee for warrant-able service work.

Some states do not allow the exclusion of limitations of incidental or consequential damages.

Listed exclusions and limitations may not apply to you.

During the full coverage warranty process, we cover all replacements, repairs and labor cost. The customer is responsible for shipping to and from our warranty center.

TROUBLESHOOTING

Situation	Possible Cause	Suggestion
Start the Excelpool System without reaction, no display	Check the power connection	Use test pencil to check if there is electricity
		Change the socket
		Check the wire connection
		Check the overload protection device
	Check the fuse	If fuse blow out, replace it
	If the PCB board just be replaced	Check the connection of the PCB is right or wrong
		Check the transformer to see it is good or not
"NO FLOW" light on	No flow or too little low	Check if pump is connected, if use variable speed pump, speed up the water flow. Keep flow rate at least 25-30 GPM
	Wrong flow direction	Remain the flow direction same as the arrow outside the flow switch
	Flow switch or crystal plug is broken	Change the flow switch

"NO FLOW" light is blinking	Start the machine, it is normal that the light blink because it need time to detect the water flow	Normal
	Variable speed pump, water flow too slow	Change the flow switch
"Inspect Cell" light is flashing	The machine worked around 500 hours	Press the "System Status" button for 3 seconds to stop
"Generating" light is flashing	Check the temperature in the swimming pool is whether too high or too low	Check the temperature, water temp should be above 55°F, less than 122°F
"Check Salt" and "Inspect Cell" light on	Check cell type	Match the right cell type with the program
	If use variable speed pump, water flow too slow	Speed up the water flow
	Actual Salinity is less than 2300PPM	Add salt, ideal salt level 3500-3600ppm
	Cell is blocked	Clean the cell
	Temperature sensor is broken	If not, replace flow switch with a temperature sensor
	PCB or cell may is broken	Contact distributor

"Check Salt" light is flashing	Check cell type	Match the right cell type with the program
	Actual Salinity is between 2300-2500PPM	Add salt, ideal salt level 3500-3600ppm
	Cell is blocked	Clean the cell
"High Salt" light blinking	Check cell type	Match the right cell type with the program
	Actual Salinity is between 4500-6400PPM	Add water, ideal salt level 3500-3600ppm
	Temperature sensor is broken	If not, replace flow switch with a temperature sensor
	The cell plates are short-circuit because they are not fixed in the housing	Change the cell
	PCB is broken	Change the PCB
"High Salt" and "Inspect cell" light is on	Check cell type	Match the right cell type with the program
	Actual Salinity is more than 6500PPM	Add water, ideal salt level 3500-3600ppm
	Temperature sensor is broken	If not, replace flow switch with a temperature sensor
	The cell plates are short-circuit because they are not fixed in the housing	Change the cell
	PCB is broken	Change the PCB

Low or no Chlorine in pool	The water temp too high or too cold	Check the temperature, water temp should be above 55°F, less than 122°F
	PH not normal, the water in alkalinity will influence the chlorine	Keep PH 7.2-7.7
	Bad water quality has large quantity of microorganism or germ will consume the chlorine	Change good quality water
	With chemistry, like Chemical Fertilizers and Pesticides	Ensure all chemicals on page.6 are within range

Customer Warranty

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